State of Vermont
Public Service Board

Docket No. _____	)
	)
Petition of Burlington Electric Department	)
pursuant to 30 V.S.A. § 209(d)(2), for	)
conduct of an Overall Performance	)
Assessment and reissuance of	)
an Order of Appointment to Provide	)
Service as an Energy Efficiency Utility	)

Direct Testimony of
Chris Burns

Summary: In this testimony, Witness Burns provides evidence in support of BED's assertion that it has complied with the PSB's evaluation criteria as defined in BED's Order of Appointment and the Process and Administration document, that additional proceedings to consider an alternate implementation provider will not result in positive net benefits and BED's order of appointment to serve as an energy efficiency utility within the City of Burlington should be renewed for a period of not less than 11 years beginning in the calendar year following the date the PSB issues its approval in this proceeding.

Q. Please state your name, position and address.

A. Christopher Robert Burns, Director of Energy Services for City of Burlington Electric Department (BED), 585 Pine Street, Burlington, Vermont 05401.

Q. Please describe your experience and qualifications.

A. I have twenty-seven years of experience in the energy efficiency and electric utility industry. Since 2006, I have served as BED's Director of Energy Services responsible for supervising the delivery of BED's customer and energy service offerings to all of BED's residential and commercial customers. The position is also responsible for the recommendation, development and implementation of city-wide energy-efficiency programs. During this period, I have participated in numerous Vermont Energy Efficiency Utility proceedings with stakeholders, other utilities, the Vermont Public Service Board and the Vermont Department of Public Service. Prior to the current positon, I served as BED's Director of Residential Services with a primary focus on developing and delivering energy efficiency services to residential customers. I began my energy efficiency career as an energy specialist and have conducted hundreds of energy audits on a wide variety of residential and commercial buildings. For further details, please refer to my resume which has been included as Attachment 1.

Q. Have you previously presented testimony before the Public Service Board?

A. Yes, I provided testimony in Docket No. 5980 concerning BED's proposal to implement core energy efficiency programs within its service territory.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is two-fold: to provide evidence to the Public Service Board (PSB) that BED's performance as the energy efficiency utility for the City of Burlington (City) over the past six years has resulted in more positive net benefits than any other energy services provider could have realistically delivered, and to ask the PSB to re-appoint BED as an electric energy efficiency utility (EEU) for another 11 years, effective at the beginning of the calendar year following the issuance of the PSB's order in this proceeding.

Q. Please summarize the regulatory framework which guides the PSB's performance evaluation of the EEU's in Vermont.

A. Pursuant to the Section III.1 of the revised P&A document effective April 17, 2015, an Overall Performance Assessment (OPA) shall be conducted at least every six years by the PSB to determine whether probable net benefits would result from additional proceedings considering alternate implementation entities other than the incumbent EEU(s). Moreover, BED's Order of Appointment dated April 19, 2011 (OOA), which governs BED's operations as an EEU within its service territory, further states that a [second] OPA shall occur in the latter half of 2015. Such assessment shall focus on BED's operations as the City's EEU over the last two, 3-year performance periods: 2009 -2011 and the 2012 -2014 periods.

To determine whether to re-appoint an entity as an energy efficiency utility, the PSB evaluates the performance of the incumbent in accordance with nine criteria:

- Performance with respect to acquisition of energy and demand savings, and achieved Total Resource Benefit;
- Performance with respect to broad policy goals;
- Qualitative performance regarding specific policy initiatives;
- Performance regarding administrative functions necessary to carry out duties;
- Administrative efficiency;
- Customer service with respect to energy efficiency services provided to prospective and participant customers;
- Organizational qualifications of incumbents;
- Financial Stewardship of ratepayer dollars; and
- Performance benchmarked in relation to other energy efficiency providers.

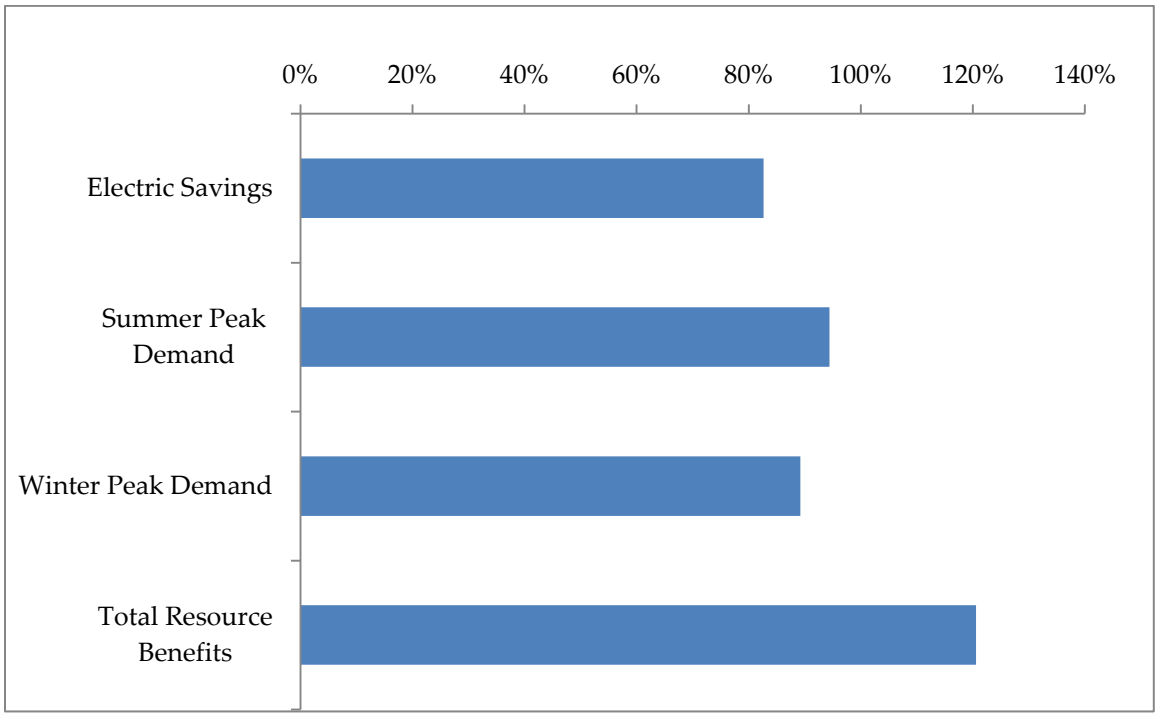
Q. Please summarize BED's performance relative to the nine evaluation criteria noted above.

A. In the sections below, I provide a summary of BED's performance relative to each evaluation criteria. For a more detailed explanation of each criterion, however, please refer to Exhibit 1 which is attached to my testimony. Exhibit 1 includes BED's memorandum in support of re-appointment and other supporting documentation.

Q. Please continue.

A. Certainly. Criterion "*i*" includes an assessment of BED's performance with respect to the acquisition of energy and demand savings, and achieved Total Resource Benefit. As the figure below highlights, BED performed admirably with respect to acquiring cost effective electric savings, summer peak demand reductions and total resource benefits.

Figure 1: 2009 - 2014 Resource Acquisition goals



Q. Please provide a summary of BED's electric resource acquisition results.

A. Figure 1, above, highlights the cumulative results over both 3 year performance periods (six years) for electric savings, summer peak savings and total resource benefits. Winter peak savings reflect acquisitions only during 2009 – 2011, since this metric was eliminated prior to the commencement of the second performance period due to the fact that BED is a summer-peaking utility.

The table below breaks down the results for each performance period.

Table 1: QPI Summary results 2009 – 2014

QPI	2009 - 2011	2012 -2014	Total 6 years	Actual as % of Goal
MWh Savings Goal	22,354	24,518	46,872	
Actual	19,917	18,834	38,751	83%
Summer Peak goal	3.0	3.2	6.2	
Actual	3.2	2.7	5.9	94%
Winter Peak Goal	3.7	-	3.7	
Actual	3.3	-	3.3	89%
TRB Goal	20.2	18.7	38.9	
Actual	19.2	27.8	46.9	121%

Q. BED's filing includes the combined Forward Capacity Market/Savings Verification (FCM/SV) reports for each year of the second performance period, except 2014, why is that?

A. That's right. During the second performance period, BED and the DPS agreed to combine the FCM and SV evaluations into a single process. As required by the ISO-NE, the FCM evaluation process is more rigorous than the standard SV process. In accordance with the ISO-NE's evaluation protocols, BED's reported savings are subject to onsite metering, onsite verification of measure installs and other post-project verifications in addition to desk reviews of project files. Savings verification protocols, which BED followed during the first performance period, required that the DPS's evaluator only conduct desk reviews of project files to verify reported savings. As a consequence, BED's FCM/SV reports take longer to complete. It is my understanding that it is not uncommon for this type of evaluation to take up to two years to complete after the close of a program year. And, I have been informed the BED's 2014 FCM/SV report will be completed in mid- to late 2016.

For the purposes of this OPA, the DPS recommends applying 92.6 percent realization rate[1], which is the five year average from the 2009 to 2013. The DPS has observed that BED's evaluation results have been stable and consistent over the past several years so it is confident

[1] The realization rate applies to MWh only.

that the 2014 results will be similar to the results of previous evaluations. BED is in support of the DPS's recommendation and understands that this proxy model concept only applies to this specific OPA process

Q. Could you please describe how BED's savings goals are established?

A. As the table above shows, BED exceeded the TRB goal, came close to its summer and winter peak goals but fell short of the MWh savings goals.

The above-noted savings goals were negotiated with the DPS during the demand resource planning process. The goals were established based on statewide potential study results that were then extrapolated to Burlington even though the DPS and BED acknowledged at the time the goals were set that the City is unlike most other regions in Vermont. Some of the City's unique characteristics include:

- The top twenty commercial accounts represent nearly 50% of BED's total energy consumption,
- Commercial, industrial and institutional customers represent 75 % of the total energy consumption,
- Approximately 11,000 residential customers use 500 kWh per month or less,
- 60% of residential customers rent their homes,
- There is a high proportion of college-age renters living in the City who move frequently between rented apartments contributing to a 35% annual turnover rate,
- A high percentage of the buildings in Burlington are connected to VGS's natural gas network (residential: 85%; C& I: 95%); and
- About 70% of commercial customers lease their buildings.

As a consequence of these unique characteristics, the process of establishing BED's savings goals by inference is sub-optimal. And, since the negotiated goals are, in essence, decoupled from Burlington's unique market characteristics, a fair evaluation of BED's resource acquisition performance is, at best, a challenging endeavor. BED and DPS have discussed how to address this issue in connection with the next DRPP.

Q. Please provide a summary of BED's thermal savings results.

A. Thermal energy and process fuels (TEPF) savings were:

Table 2: Quantified Performance Indicator (2012 -2014) Thermal only

TEPF RESOURCE ACQUISITION			
Period Costs for TEPF Savings	**Residential**	**Commercial**	**Total**
Year to Date Costs	$51,058	$1,503	$52,561
Annual Budget	$97,088	$52,577	$149,665
% of Annual Budget	53%	3%	35%
Energy Savings Results			
MMBTU Year to Date	403	0	403
MMBTU Annual Goal	544	132	676
% of MMBTU Annual Goal	74%	0%	60%
Progress Towards MMBTU 3-Year Goals			
MMBTU Cumulative to Date	617	64	681
3-Year MMBTU Goal	1,428	504	1,932
% of 3-Year MMBTU Goal	43%	13%	35%

The table, above, includes savings and expenses related to BED's thermal programs which were implemented during the second performance period only. As noted in the bullets above, most Burlingtonians heat their homes and businesses with natural gas and therefore they work primarily with Vermont Gas to implement thermal efficiency projects. Thus, the pool of cost effective thermal savings in homes that use non-natural gas fuel for heating is extremely low, especially in the commercial sector.

Q. How well did BED perform with respect to criterion *ii*?

A. For this OPA, criteria *ii* is ostensibly measured by BED's ability to comply with the PSB's minimum performance requirements (MPRs). These requirements include:

- Long term Market Transformation
- Business Comprehensiveness
- Equity for all rate payers
- Equity for Residential rate payers
- Equity for Low income customers
- Minimum Small Business Participation
- Administrative Efficiency – Key process improvements

Except for business comprehensiveness, BED met and/or exceeded the PSB's expectations regarding broad policy goals, as shown in the tables below.

1 **Table 3: 2012 - 2014 Minimum Performance Requirements**

MPR#	Title	Performance Indicator	Target	Policy Goal Advanced	Results as of 12/31/2014
4	Long-term Market Transformation	On-the-bill financing of electric energy efficiency measures	Design and implement a customer on-the-bill financing option for electric energy efficiency measures	Encourage the EEU's to design and implement effiiency initiatives that maximize market transformation	BED achieved this goal with the start of OBF in April, 2013
5	Comprehensiveness of savings by Existing Business Customers	Increase the average kWh savings per participant premise in the Business Existing Facilities market	26,400 kWh savings per BEF participant on average (a 10% increase from a 2009-2011 baseline)	Intended to ensure that energy efficiency initiatives are designed and implemented to acquire comprehensive savings	BED did not achieve this goal with 9,242 kWh avg savings per participant. BED believes that this lower result is driven by the high penetration of LED's during the 2009-2011 period and the larger number of smaller lighting projects via the upstream Smart light program during 2012-2014
6	Equity for all Electric Ratepayers	Total electric benefits divided by total costs	Equal or greater than 1.2 cost benefit ratio	Equity for all Vermont electric customers as a group by assuring that the overall electric benefits are greater than the costs incurred to implement and evaluate the *EEU* and the *EEC*	BED has achieved this goal with a cost benefit ratio of 4 over the three-year period (avoided cost of electricity / BED program costs + evaluation costs)
7	Equity for Residential Ratepayers	A minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to residential customers	956,000	Equity for residential customers by assuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to residential customers	BED has achieved this goal with residential spending at $1.5 million over the three-year period.
8	Equity for Low-income Customers	A minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to Low-income customers	180,000	Equity for low-income customers by assuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to low-income households	BED has achieved this goal with over $244,000 in low-income spending over the three-year period
9	Threshold (or minimum acceptable) Level of Participation by Small Business Customers	Number of total non-residential premises with annual electric use of 40,000 kWh/yr or less that acquire kwh savings	158	Equity for small business customers by assuring that a minimum level of overall efficiency efforts, as reflected in participation, will be dedicated to small business accounts	BED has achieved this goal with over 350 participants over the three-year period
10	Administrative Efficiency - Key Process Improvements	Meet all pre-determined milestones on schedule	Identify process improvements and begin to assess by FYE 2014	Intended to encourage EEU's to continually assess its operations to continue to deliver services that maximize ratepayer value	Identified and submitted key process improvement. Internal assessment pending

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During the 2009 -2011 performance period, BED also performed in line with expectations, as shown in the table below.

Table 4: 2009 - 2011 Minimum Performance Requirements

MPR#	Title	Performance Indicator	Target	Policy Goal Advanced	Results as of 12/31/2011
1	Min electric Benefits	Total electric benefits divided by total costs	Equal or greater than 1.2 cost benefit ratio	This requirement is intended to ensure that BED produces at least enough electricity resource savings to cover contributions by BED's consumer-owners. Also, to ensure that resources are being obtained cost effectively and at or below market power costs.	Total electric benefit ratio of 4.1 was achieved over the three-year period
2	Threshold (or minimum acceptable) level of participation by low-income households	Equity for low-income customers	10% of program spending to be for low-income single and multifamily services	Assuring that a minimum level of BED's overall efficiency efforts, as reflected in spending, will be dedicated to low-income households	4.3% of all program spending was for low-income single and multifamily services (13.8% of total three-year residential spending was for low-income customers)
3	Threshold (or minimum acceptable) level of participation by small non-residential customers	Equitable share of service to smaller non-residential customers.	40% of total non-residential accounts with savings are accounts with annual electric use of 40,000 kWh/yr or less	Offsets potential incentive to concentrate on larger non-residential customers, where BED's cost per kWh is lower	Over the 3 year period, 64% of non-residential accounts with savings are accounts with annual electric use of 40,000 kWh/yr or less

Q. Of the MPR's noted above, which ones warrant additional attention and context so that a fair and balanced evaluation can be conducted?

A. All but two of the above noted MPR's are straight-forward and self-explanatory. The exceptions are market transformation and business comprehensiveness. In BED's view, these deserve a closer inspection than the other MPRs due to the fact that each has the potential to have lasting effects. Both metrics have also consumed a considerable amount of BED's resources and staff time.

In the case of business comprehensiveness, BED was unable to achieve the goal – as currently defined – despite the valiant efforts of our staff. The metric also does not fully reflect BEDs efforts with its largest customers when our staff has the opportunity to engage with them on projects, which is described in greater detail in Exhibit 1.

Q. Please start with an explanation of why you believe BED's market transformation efforts warrant further attention.

A. The specific market transformation indictor for BED was to design and initiate an on-bill financing mechanism. This was completed in April, 2013. Since that time, twenty-five applications have been received and nine loans completed with three more currently in progress. Today, the total amount of loaned and committed OBF funds amounts to approximately $470,000. More OBF loans can and will be processed in the coming years as BED expends additional effort to market OBF and other financing options.

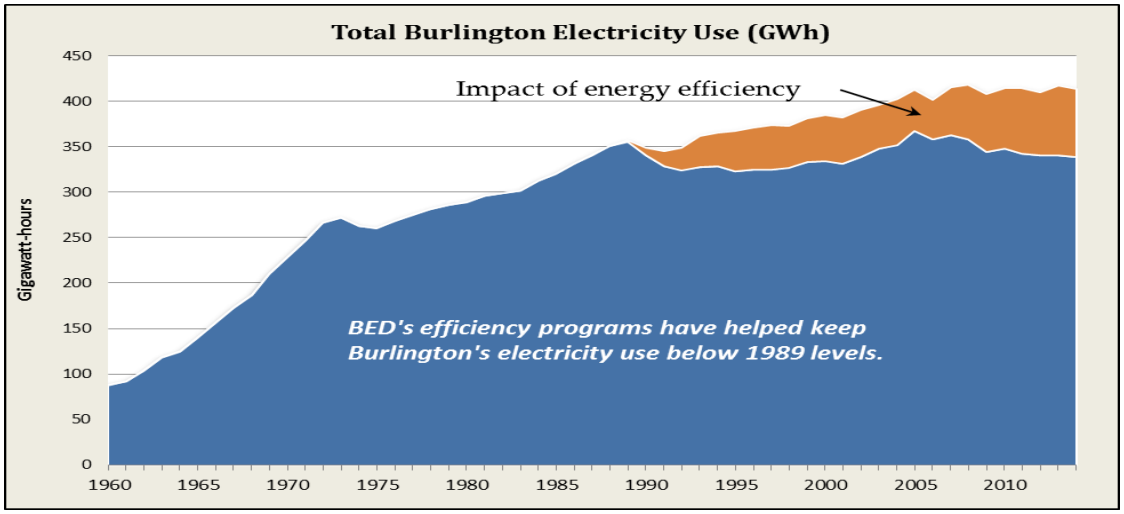
But transforming a local market requires much more than providing OBF options. And, BED has done much more in this area.

As noted in Exhibit 1, ACEEE defines market transformation as:

> *"Strategic interventions that attempt to cause lasting changes in the structure or function of a market, or the behavior of market participants, resulting in an increase in the adoption of energy efficient products, services, or practices".*[2]

If the PSB were to adopt a similar definition for market transformation as ACEEE, then the figure below should suffice as ample proof of BED's successful efforts in this area.

Figure 2: Impact of EE programs on total electricity use



[2] See; http://aceee.org/conferences/2015/mt. Accessed on 9/10/15.

BED has a long and proud tradition of providing cost-effective energy efficiency services. Since 1990, the energy services division at BED has been the "*go-to*" organization in the city to make efficiency happen. Energy services staff have provided in-depth technical assistance, engaged influential market actors, implemented a host of innovative programs and, of course, provided generous but cost effective financial incentives. Together, these efforts – in aggregate – constitute strategic interventions that not only attempt to cause lasting changes in the local market but actually have caused lasting changes as the figure above illuminates.

Over the past 25 years, BED has provided $24.6 million in incentives and countless hours of technical advice. Meanwhile, customers invested more than $27.9 million of their own. Combined; the total investment in energy efficiency amounts to $52.5 million. The lasting result of the community's aggregate investment in energy efficiency has been to essentially flatten electricity sales over the past two and half decades, even as the local economy has grown and evolved. In short, the figure above provides ample proof of BED's success in this area and should act as a counter-weight to the other metrics where BED has been less successful.

Q. Has BED begun to implement market transformation initiatives other than OBF?

A. Yes, it has. Over the past three years, BED has also launched a series of initiatives that are widely acknowledged to potentially change the manner in which markets function and to modify behaviors toward adopting energy efficiency. These include but are not necessarily limited to the following:

- Building codes,
- Account management,
- Upstream market transformation; and
- Tiered incentives for commercial new construction projects.

For a more in-depth description of these efforts, please refer to Exhibit 1.

Q. Okay, please move on to Business comprehensiveness. Why is the metric an inappropriate reflection of BED's broad policy goal performance?

A. As noted, the specific metric in this area is defined as: *26,400 kWh of savings per Business Existing Facilities (BEF) participant, on average (a 10% increase from the 2009 -2011 baseline)*. The purpose of the goal is to ensure energy efficiency initiatives are designed and implemented to acquire comprehensive savings. The average savings across all BEF participants during the 2012 – 2014 performance period amounted to 9,242 kWh.

BED supports the concept of implementing comprehensive projects and worked closely with the DPS on developing an appropriate metric. However, in hindsight, BED should have defined the metric more clearly to account for wide variances in annual participation rates and savings per participant that can result from changes in program designs.

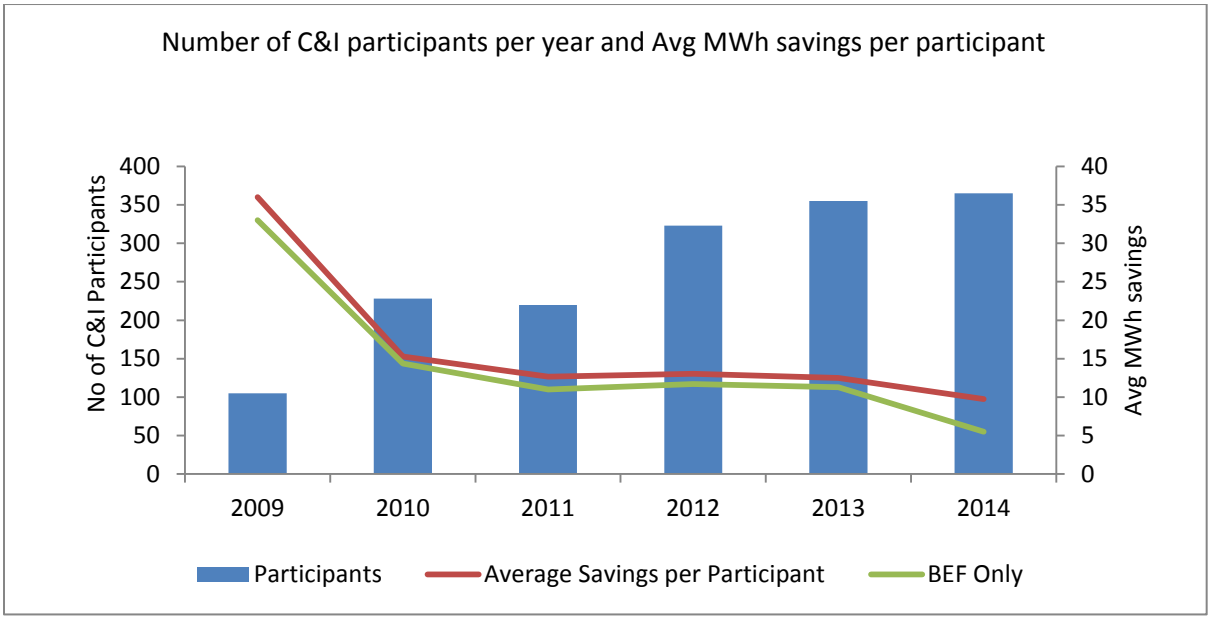
Q. What were the factors that effected achieving this MPR?

A. In a reaction to the 2008 recession, BED and Efficiency Vermont (EVT) designed and implemented a commercial iLED program starting in 2010. This program paid incentives equal to 75% of the cost of screw-in LED's. The promotion was very successful throughout 2010 and 2011, especially in the retail sector. Many participants were replacing a majority of their incandescent track and/or recessed lightings and were achieving tremendous lighting related savings. Since LEDs have a measure life in excess of 10 years, many of BED's smaller customers still have the *iLEDs* in place and do not have another reason to participate in the Business Existing Facilities (BEF) program.

Secondly, the successful commercial Smartlight distributor program, launched in mid-2012, has helped to increase commercial participation, but the savings per lighting purchase are typically small as customers are simply replacing burned out bulbs as part of routine maintenance. The purpose of the program was, and still is, to transform the supply channel so that supply chain market actors influence the purchase of higher efficiency replacement lighting products.

Although the programs increased participation, the downside of implementing them was a dramatic decline in average savings per commercial customer, as shown in the figure below.

Figure 3: C&I Participation and Avg. MWh savings



Q. Even though average savings per business participant declined to less than 10 MWhs and a substantial percentage of commercial customers consume less than 26 MWhs annually was BED able to achieve comprehensive savings for some of its customers?

A. Absolutely. As noted in Exhibit 1, BED actively manages larger accounts in the city – primarily UVM and the UVM Medical center but there are others as well. When BED's account managers are able to engage larger customers early in the planning process, they are oftentimes able to achieve significant savings per project.

For example, BED engaged the Hilton Hotel, a seven-story 130,500 square foot building, on a full lighting retrofit project, with controls, that impacted all of the building's common areas and guest rooms. The project was completed at the end of 2013 and the DPS verified that the lighting savings were about 42%. In 2013, BED began working with the Burlington School District to upgrade the lighting at the Champlain Elementary school, a 52,000 sf building. BED worked with the school's contractors to complete a full lighting retrofit with advanced controls in 2014. This project resulted in lighting savings of approximately 64%. School staff and parents are also thrilled with the much improved light quality in the building.

As noted, BED has always worked closely with UVM over the years but now we have an account manager who is assigned to managing this relationship full time. For the past year and half, our UVM account manager has been working closing with UVM facility staff and their local energy engineering firm on identifying a large number of HVAC and lighting efficiency projects. To fully understand the savings potential, our staff has been sub-metering and analyzing key building systems and equipment. So far, the UVM project team has identified a number of viable opportunities that could reduce consumption as much as 40% in the buildings selected thus far. The energy improvement work, for one of the buildings, is in progress and should be completed by the end of 2015. BED hopes to promote this project to encourage more comprehensive projects with UVM.

Q. Please summarize BED's performance with respect to specific policy initiatives?

A. Criteria *iii* involves a qualitative assessment of BED's contributions to the State's efforts to further its energy policies. On this front, BED's contributions have been consistent, constructive, innovative and relevant. Although BED's participation in state-sponsored collaborative working groups has been extensive and varied, three essential state policies have been highlighted in Exhibit 1 as examples of BED's performance in this area. The policies include: integrated least cost resource planning, comprehensive energy planning and program equity, especially with respect to low income families. For a more detailed explanation of BED's performance in this area, please refer to Exhibit 1.

Q. What about BED's performance with respect to Administrative functions.

A. In past years, the PSB has primarily focused its attention on four functions: tracking and reporting energy efficiency savings and expenditures; responding to data requests; managing contracts; and managing IT systems.

BED has met and/or exceeded the PSB's expectations in this area and has fully demonstrated an ability to carry out its duties as the City's energy efficiency utility. As evidence of its capabilities, BED has provided to the PSB the DPS's 2013 FCM savings verification report. This report includes a finding that BED achieved a realization rate of 102 percent. Accomplishing a realization rate of this magnitude is a reflection of BED's capability

to expertly manage IT systems, quickly respond to requests for information and, most importantly, to store, track and accurately report energy savings and expenditures.

For a more detailed accounting of BED's capabilities in this area, please refer to Exhibit 1.

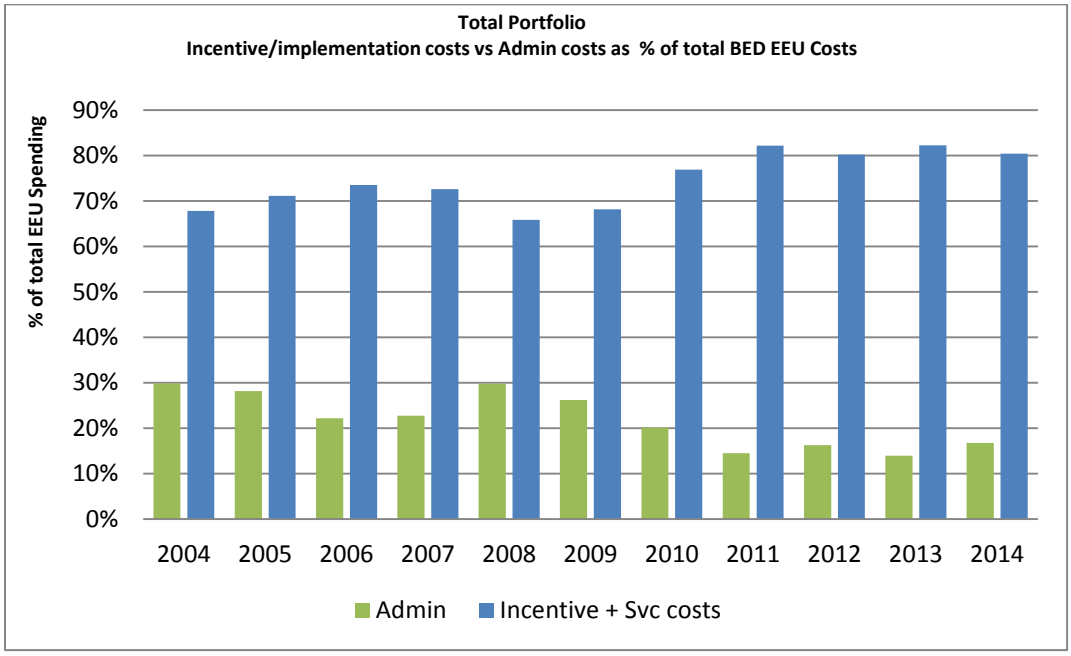
Q. Please describe the evaluation criterion related to Administrative efficiency and summarize BED's performance in this area.

A. In the prior OPA, the focus of the PSB's inquiry was centered on BED's EEU related administrative costs as a percent of total EEU costs, as well as a comparison of this cost metric to EVT.

For this OPA, the focus is the same.

And as before, BED's performance over the past six years has been more than satisfactory. BED has continued its practice of minimizing administrative costs relative to total costs, as shown in the figure below.

Figure 4: Administration costs



As the graph above demonstrates, BED's administrative expenses, which include costs related to IT, marketing, planning, rent and other ancillary items, have trended slightly downward and remain under 20% of total EEU costs. Incentive spending is money paid

directly to participating customers. Incentive spending also includes a relatively small amount that is paid to upstream market actors to stock and sell more efficient equipment over standard equipment to their customers. Meanwhile, service costs include primarily technical assistance provided to the customer. In BED's view, incentive and service costs constitute a significant customer benefit and reflect the amount of EEC funds that are re-invested back into the community.

Relative to EVT, BED once again performed in a comparable manner by keeping administration expenses lower than EVT on relative basis.

For more details, please refer to Exhibit 1.

Q. Please summarize BED's performance with respect to customer service.

A. BED takes customer service seriously. Throughout the entire organization, BED staff work extremely hard at providing exemplary customer service. To gauge how the organization is performing in this area, independent customer satisfaction surveys are conducted every three years. In December 2014, two new customer satisfaction surveys were submitted to the Burlington Electric Commission for review: one of residential customers, the other of commercial customers.

While BED acknowledges that there is always room for improvement, the hard work and dedication of its employees continues to translate into a high level of customer satisfaction. The 2014 surveys demonstrated that BED's customers continue to recognize and value the services our employees routinely provide.

Based on the results of these customer surveys, BED is proud to say that its customer service is as good, and possibly, even better than in 2010.

For more details in this area, please refer to Exhibit 1.

Q. Please describe BED's organizational qualifications.

A. Similar to the criterion above, the PSB conducts a qualitative assessment of an EEU's qualifications to determine whether to seek another EEU to supplant the incumbent.

Today, the staff of BED's energy services is as equally qualified as the staff was in 2010; and perhaps even more so on account of the fact that technologies are more advanced and the needs of our customers more complicated. Several staff members have more than a dozen years of energy related experience, some have written industry related white papers and presented at national conferences, a few have advanced degrees and all members of the team have direct, hands-on experience across many technologies. All in all, the energy services staff is more than capable of serving the needs of Burlingtonians, as well as providing the in-depth analyses that the PSB expects from an EEU.

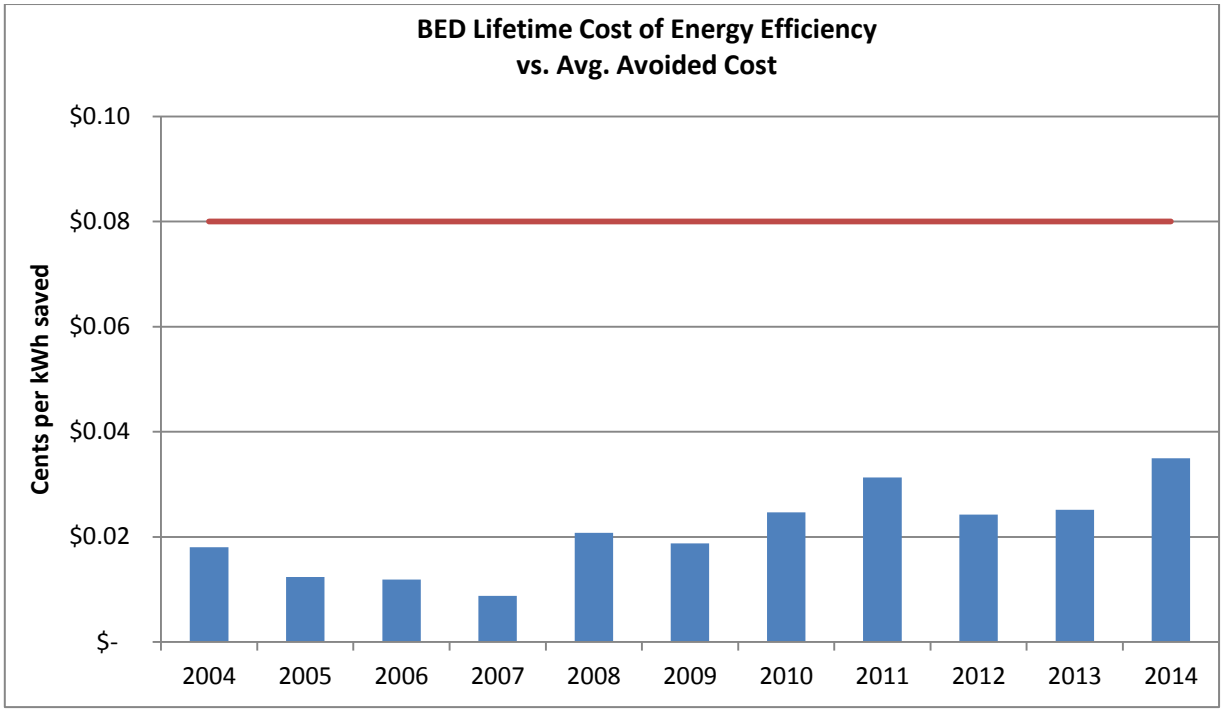
For additional details, please refer to Exhibit 1.

Q. Has BED performed well as a financial steward of ratepayer dollars?

A. Yes. Over the last six years, BED has continued its tradition of exemplary financial stewardship and is dedicated to do so into the foreseeable future. As a municipal utility of 110 years, safeguarding ratepayer money is paramount and earning the customer's trust every day is critical to our existence.

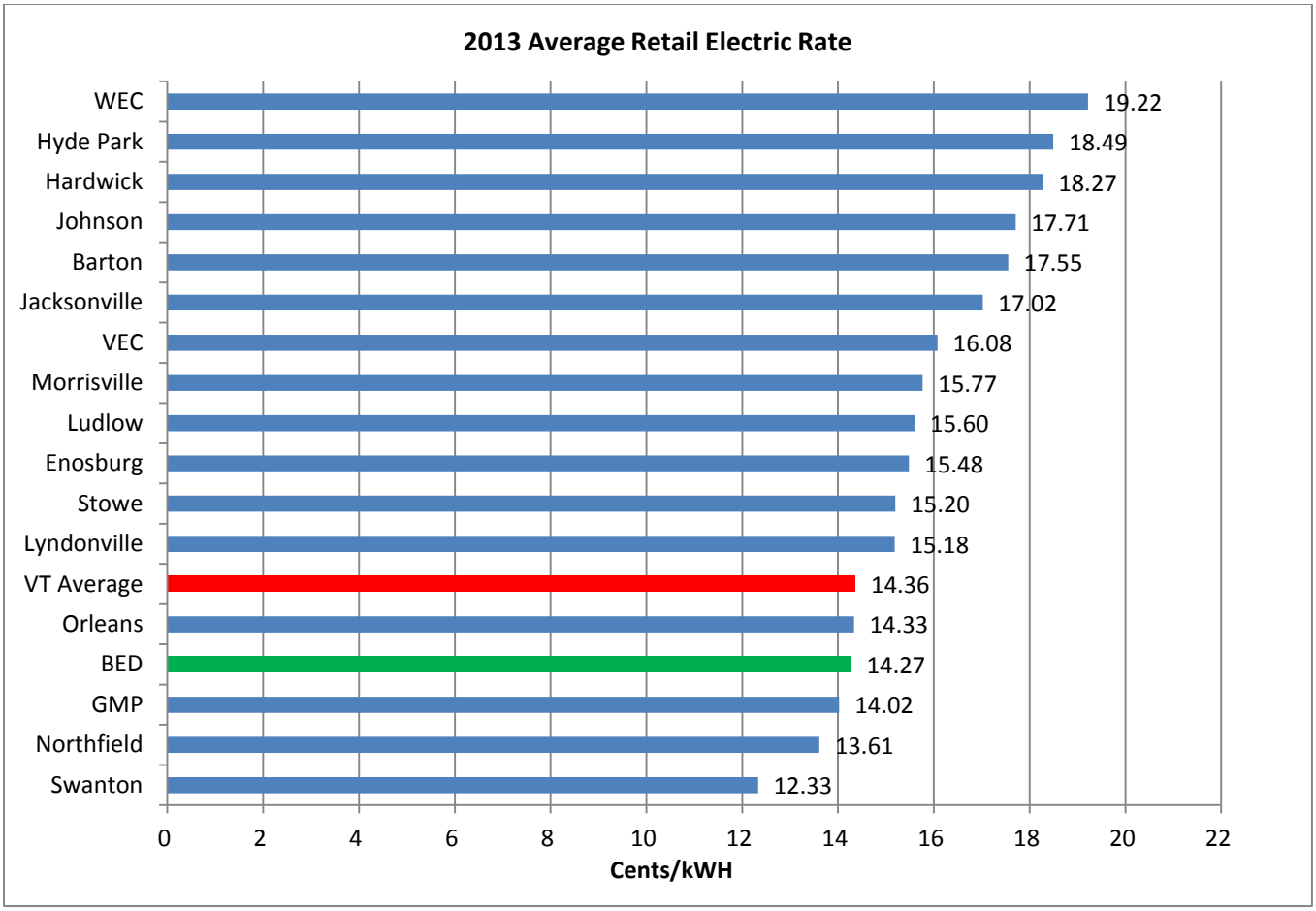
Although not the focus of the PSB's assessment in 2010, BED asserts that two fundamental measures of financial stewardship serve as excellent examples of BED's performance in this area: the levelized cost of saved energy and rate impacts. These two measures, in BEDs view, are highly indicative of an EEU's ability to not only safeguard ratepayer funds but to also ensure that such monies are appropriately invested. For each of these performance measures, BED has excelled. As highlighted in the graph below, BED has invested rate payer funds in resources at half the cost of traditional energy costs while also keeping rates competitive with other distribution utilities in the state.

Figure 5: Levelized cost of saved energy



At the same time that BED has delivered highly cost-effective electric energy efficiency programs, it has also maintained competitive rates vis-à-vis other Vermont distribution utilities, as the graph below shows.

Figure 6: BED rates vs. other VT electric utilities



For additional details, please refer to Exhibit 1.

Q. Is BED's performance comparable to the performance of some of the Nation's leading energy service providers?

A. Yes, it is. Despite the widely acknowledged difficulties associated with comparing operational results across EEUs, the PSB relied on the DPS's benchmarking report that was submitted in BED's initial 2010 performance assessment to render its opinion. That report indicated BED's performance was satisfactory and that BED achieved savings at a cost that was comparable – on average – with some of the leading energy efficiency providers in the Nation.

Today, the same conclusions apply.

This time the conclusions rest on a 2014 benchmarking analysis indicating that BED continued to deliver above average savings as a percent of total MWh sales at a cost that was slightly above the median. The table below highlights BED's performance relative to EVT and the median results of other nationally recognized energy service providers.[3]

	Spending as % of Revenue	Energy Savings as % of Sales	Summer Peak Demand Savings as % of Peak Demand	Retail Cost of Energy $/kWh	Cost of First Year Savings		Levelized Cost of Energy Savings *	Cost of Lifetime Savings **
					$/kWh	$/kW	$/kWh	$/kWh
All Benchmarked Median	2.70%	1.70%	0.90%	$0.12	$0.25	$1,825	$0.03	$0.02
EVT	4.00%	2.40%	1.30%	$0.15	$0.24	$1,705	$0.03	$0.02
BED	3.60%	1.90%	1.20%	$0.14	$0.26	$2,254	$0.03	$0.02

* Levelized cost of energy includes a capital revcovery factor.
** Cost of lifetime savings is annual spending divided by lifetime savings.

Q. ACEEE recently conducted a national study of municipal utility energy efficiency programs; could you please provide additional information about that report?

A. In the summer of 2015, ACEEE conducted a national survey of municipal utilities that manage energy efficiency programs. The survey results were cumulated into a recently released report in October, 2015; a draft of which has been included in the supporting documents folder that has been submitted with this testimony.

The intent of the report was to highlight examples of municipal utilities with strong track records of providing energy efficiency programs. To this end, ACEEE surveyed 23 municipal utilities considered by their peers to be leaders in the energy efficiency field and then profiled nine utilities with exemplary performance. The nine municipal utilities included:

[3] See direct testimony of Brian Cotterill, Docket No. 8455, June 26, 2015, at pg. 17.

- Burlington Electric Department
- Fort Collins Utilities
- Glendale Water & Power
- Los Angeles Department of Water and Power
- Lansing Board of Water and Light
- Seattle City Light
- Sacramento Municipal Utility District
- Snohomish County Public Utility
- Tacoma Power

According to ACEEE, the nine profiled utilities turned in results that were as competitive as many of the best-performing investor – owned utilities in the nation. Among this group, the average savings was 1.4% of total energy sales and energy efficiency spending was about 3.1 percent.

For more details, please refer to Exhibit 1.

Q. Based on your testimony and supporting documentation, what findings of fact do you recommend the PSB make in this proceeding?

A. After a fair and balanced assessment of my testimony, Exhibit 1 and supporting documentation, I believe the PSB can make, at a minimum, the following findings:

- BED has a long and proud 25 year tradition of delivering cost effective energy services that customers appreciate and value.
- BED achieved a 15 year goal of sourcing 100 percent its electric generation from renewable energy.
- BED's performance with respect to achieving energy, capacity and total resource benefits is in line with the PSB's expectations.
- BED's performance with respect to adhering to the state's broad policy goals is satisfactory.
- BED has consistently and constructively contributed to many of the state's specific policy initiatives; consequently, its performance in this area is in line with the PSB's expectations.
- BED's performance regarding administrative functions is sufficient to carry out the duties of an energy efficiency utility in the city of Burlington.
- BED's administrative expenses are equal to or less than 20 percent of the total cost of delivering energy efficiency services.
- BED provides energy services in an administratively efficient manner.

- BED's energy services division provides excellent customer service and is highly rated by its customers.
- BED's energy services staff is highly qualified to perform the duties that are expected of an energy efficiency utility.
- BED's ability to consistently acquire energy savings at half the cost of avoided energy while also keeping rates competitive with other distribution utilities in Vermont indicates that BED has been an excellent steward of ratepayer funds.
- BED performance is comparable to that of the Nation's leading energy efficiency providers.

Q. In summary, why should the PSB re-appoint BED as the City's energy efficiency utility?

A. The evidence in this proceeding shows that BED's performance with respect to the above-referenced evaluation criteria was in line with the PSB's expectations. Importantly, the evidence also indicates that BED achieved the Board's overall goal of ensuring that Burlingtonians received the maximum value possible from ratepayer funded efficiency programs.[4] In BED's opinion, our administration of the City's energy efficiency programs have delivered more net benefits to all ratepayers than any other energy efficiency utility could have realistically provided. Accordingly, there is no basis to assume that additional proceedings to consider an alternate implementation provider would result in probable net benefits. Based upon the foregoing, the Board should reissue BED an OOA for an additional 11 years commencing at the beginning of the calendar year following the Board's Final Order.

Q. Does this conclude your direct testimony?

A. Yes it does.

[4] See PSB Docket 7466, Order dated August 20, 2010 at pg. 70.

Attachment 1: Resume of Chris Burns

Christopher R. Burns
105 Crescent Road
Burlington, Vermont 05401

Home: (802) 864-7330
Cell: (802) 598-8031
E-mail: crburns11@gmail.com

Employment History

Burlington Electric Department; Burlington, Vermont

Director of Energy Services: August 2005 - Present

Responsible for supervising the delivery of BED's energy service offerings to BED's customers. Responsible for the recommendation, development and implementation of city-wide energy-efficiency and demand response programs. Coordinates these activities within the Department, with city government, appropriate state agencies, other utilities and key stakeholders.

Duties: Responsible for the operating and energy efficiency services budget development and control for the Department. Coordinates the development, marketing, promotion, and implementation of all customer and energy services area programs and related efforts for both new and existing customers in cooperation with other Department areas. Works closely with the VT Energy Efficiency Utility (EEU) contractor, the VT Department of Public Service (DPS) and the VT Public Service Board (PSB) and other areas to evaluate, modify and gain approval for ongoing EEU, BED and other energy service programs. Oversees the incorporation of new electro-technologies into existing and new energy efficiency programs.

Director of Residential Services: October 1996 - August 2005
Responsible for supervising the activities of the Residential Services area focused on efficiency program offerings, but dealing also with issues such as billing, payment, program, unscheduled power outage, and related communications

Duties: Responsible for the operating and energy services budget development and control for the area. Coordinated the development, marketing, promotion, and

implementation of all energy services area programs and related efforts for both new and existing residential and small commercial customers, in cooperation with other Department areas. Worked closely with the DSM Evaluation/Planning and other areas to evaluate and modify ongoing energy efficiency and other customer service programs. Worked closely with the market development and communication areas to develop energy services program design mechanisms and promotional marketing material.

Energy Specialist: October 1990 - September 1996

This position was responsible for working with primarily Burlington's residential customers and the Burlington energy professional community in presenting and delivering energy services, demand-side management (DSM) and utility load-management programs.

Duties: Provided supervision of DSM and load-management programs developed for residential customers including developers and owners of multi-family buildings. Responded to customer questions concerning efficient energy usage, energy-efficiency and load management improvements. Performed field inspections and audits of single and multi-family customer facilities to evaluate building equipment and systems, including building envelope, lighting, heating, ventilation, air conditioning, and electrical control systems to identify and assess energy-saving and control opportunities. Worked closely with customers, their architects, engineers and equipment vendors to evaluate energy saving and load management opportunities in new construction designs.

Weatherization Program Technical Specialist: November 1988 - September 1990

State of Vermont, State Office of Economic Opportunity; Waterbury, Vermont

Responsible for providing training, technical assistance and monitoring for Vermont's Low-Income Weatherization Assistance Program funded by the United States Department of Energy.

Duties: Reviewed completed project files and conducted on-site visits to review weatherization work completed by the five Community Action Program (CAP) sub-grantees. Worked with individual CAP's on corrective action and used field monitoring results to develop training and technical assistance needs for the installation crews. Introduced blower door technology into the program and provided field training to all crews statewide.

Education:

B. A. Degree, Political Science and Environmental Studies – University of Vermont, Burlington, VT, 1988

Completed numerous State of Vermont and utility-sponsored training courses and seminars in building and heating system energy efficiency retrofits - 1985 – 2011

LEED Accredited Professional, 2004

Community service and related activities

Presenter at numerous energy efficiency conferences including: Affordable Comfort, National and New England Weatherization Assistance Program, APPA and Better Buildings by Design.

Other activities:

Active Coach, Burlington Little League

Former Board member for Vermont Green Building Network

Former Coach, Girls Middle School Softball Team

Former Coach, Burlington Girls Softball League

Former Coach, Burlington Youth Soccer League